

Date: Sun, 5 Dec 93 04:30:18 PST
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: Bulk
Subject: Ham-Digital Digest V93 #136
To: Ham-Digital

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Today's Topics:

 MICOR on 9.6kbaud packet?
 Modifying the 16550 chips on the RS-232 cards
 TNC Software for Amiga

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We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 2 Dec 1993 01:14:54 GMT
From: netcomsv!netcom.com!fmitch@decwrl.dec.com
Subject: MICOR on 9.6kbaud packet?
To: ham-digital@ucsd.edu

Andy Peterson (peterson@ux1.cso.uiuc.edu) wrote:

: I'm trying to get a 9600 baud packet station on the air, and want to know if
: I can modify/use a Motorola MICOR UHF (460 band) radio on 9.6k packet. Is
: there anyone out there who has had a good/bad experience in trying to do so?
: I have a Micor service manual on the way, but would like some 'real-world'
: input. Thanks in advance and 73
: Andy N9NTI

hi andy... mitch, wa4osr here in mobile, alabama...

the micor 9600 baud expert is Dave DeBlanc, wb5vmr, 615 avenue f,
marrero, la 70072... i don't think he is on the internet... i don't
have his telephone number handy... you can reach him through the
internet by sending a message to angelo glorioso, iii, n5uxt...
angelo's address is angelo_glorioso_III@agwbbs.new-orleans.LA.US

dave and angelo helped put on the 9600 baud workshop at the arrl national convention in huntsville, al back in august... i have a mitrex that dave converted as a backup rig for the dx cluster backbone... he has converted many micors and mitrexes ... see if u can catch up with him...

mitch, wa4osr
fmitch@netcom.com

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Felton "Mitch" Mitchell, WA4OSR in Mobile, Alabama USA
205-342-7259 home, 205-476-4100 work, 205-476-0465 FAX
co-sysop for W4IAX bbs running fbb ... sysop for WA4OSR DXCluster in Mobile..

Date: 5 Dec 93 02:13:27 GMT
From: news-mail-gateway@ucsd.edu
Subject: Modifying the 16550 chips on the RS-232 cards
To: ham-digital@ucsd.edu

=====
Modifying the 16550 chips on the RS-232 cards

-----[Now, the file 16550mod.txt]-----

Notes on a modification to PC's using the INS16550A UART IC for reception of 9600bps data from the UO-22 satellite. These form the basis of an article to be published in Amsat-UK's journal OSCAR NEWS to whom permission to copy this article, and the accompanying diagram, for publication should be sought.

Background

=====
Most PC's use the 16450 UART IC for serial communications (also equivalent to the INS8250A and CMOS versions of both). With the advent of 9600bps satellite communications some folks, especially with slower PS's, noticed that they got errors on the TNC-to-PC link; this shouldn't happen ! The finger of suspicion pointed to the software making disk accesses and missing receive data whilst doing so. The 16550A UART (and CMOS 82C550A) is functionally equivalent to the 16450 but has an internal FIFO store holding 16 bytes of data and someone put the thought forward to try it. It certainly cleared up problems for some folks but others had a change of symptom; PB would just stop receiving even though data was coming from the TNC to the PC. After much research and international co-operation I think we have a hardware solution to these problems.

The solution supposes that the reason for the apparent freezing of PB is due to the fact that the 16550A interrupt line goes high to assert and stays high until the interrupt is serviced. (The more common 16450 IC also does this; I don't know why PC's don't freeze with it.) If the PC is serving another interrupt at the time the 16550A asserts then the new one doesn't get to be seen ... hence no receive data. I have actually seen this happen on an oscilloscope and the interrupt line was stuck high at the time of the freeze. The earlier belief that the FIFO needs to be switched ON is not correct, the FIFO in the 16550A is operative all the time; the software issued some time ago merely sets different TRIGGER levels for the UART's "data available" flag.

Suggested construction/installation is to make the circuit on matrix-board and stick it upside-down on top of the 16550A IC. You need to extract the 16550A, (CAREFULLY) bend pin 30 upwards, and replace the IC in its socket. Pin 30 of the IC provides input to the hardware described and the output of this hardware is connected to the pin 30 socket into the PC's PCB, use a piece of solid wire to push into the connector. Also take power and clock from the other 16550A pins without lifting them. The specified IC's are CMOS; EXERCISE ANTI-STATIC PRECAUTIONS, I blew up the first two chips because I wasn't careful.

Principle of operation: if the UART's interrupt is still high after the chosen delay time (2 bit-times at 19200 bps) the interrupt line into the PC is taken low and raised again to provide another "edge" into the interrupt machinery; a sort-of re-interrupt or "hey, remember me !" signal. The cycle repeats until the PC reads the interrupt. The duration of the low part of the pulse depends on the propagation delay from the time that Q5 goes high until the high passes through two gates to reach the 4024 reset line.

Time sequence of events is as follows:

```

+-----+-----+-----+-----+-----+
|          |input|U1D|U1B| Q5|U1A=o/p|
+-----+-----+-----+-----+
|quiescent |  L  | H  | H  | L  |  L  | no interrupt
+-----+-----+-----+-----+
|int rises  |  H  | H  | L  | L  |  H  | and propagates
+-----+-----+-----+-----+
|counted    |  H  | L  | H  | H  |  L  | interrupt hasnt been seen
+-----+-----+-----+-----+ so give a very brief blip
|reset 4024|  H  | H  | L  | L  |  H  | to low and start again
+-----+-----+-----+-----+
|read int   |  L  | H  | H  | L  |  L  | all done
+-----+-----+-----+-----+
Logic levels:   L = low   H = high

```

Please note I accept no responsibility for any damage to your PC caused by insertion or operation of this modification. Comments are, as always, welcome.

Plaudits, beer, etc should be shared among the many folks worldwide who have sent in their comments, suggestions, etc, but special thanks go to Glenn N40UL.

73 Richard G3RWL @ U0-22

-----[Now, the file 16550mod.gif UUEncoded]-----

```
begin 777 16550mod.gif
M1TE&.#=A@ )> 9,          J@"J  "JJJH  *H JJJJ  *JJJE555555_U7_
M557___]55?]5_____5?___RP      @ )> 0,$^_#)2:N]..0-N_]@*(YD:9YH
MJJYLZ[YP+,]T;=]XKN]\[_ _ H'!(+!J/R*1RR6PZG]"H=$JM6J_8K';+[7J_
MX+!X3"Z;S^BT>LUNN]_PN'Q.K]00^+Q^S^_[_X"!@H.$A8:'B(F*BXR-CH^0
MD9*3E)66EYB9FIN<G9Z?H*&BHZ2EIJ>HJ:JKK*V NK["Q:@ 3M!*VM;*ZNYBX
MM@"X# [3!0,7&BKZYM\K'S<Z"R<02PL^ .P,1&P-6SS+[7V-N'X!3C*^73X5K7
M&M'4T^?I@=[:M_3"]- _U^+GY^NRUZ_S=&QB02+L+ >_]80;J&[P1#S?T4QC"
M7H]V&/EI7)8L^V.&@!TU#BN8)&!DR(BJG3'D@/*&1Y9.FQ),^0[B0QE4AM)
M,EN%7PZ#0B27\%.PHD3QV<L7+2%2A.XL)B4G).;!FC_Y%85WU2;-GD"P+90X
M-"NH#F#F]2ANKD]U"GF:C2MT!DJ%2;<3$[D-8[BK%MF"#@&-+ED391V@!LH4K
M4.'2#L,(=\M9YG!@*S.I?OWX<BZGQ%G51D5'&:I?P)9//;W\D;3+SJ&.>I[H
M=%W3K8-K][68FH[0W\#"#Q].0+CQX\B3*U_.0/ERUZ\]]&:M[B=0V_U6MY:N
MVZ!GZE W0QXW$?P:WIK3EF8!=[H+]_ $D@_AN'D[7N&MS+YWW^Y G?1[PI2-?
M10'V8IT^>&6'G@H%XL ?@A#NM)E5ZQ$T4H,I8%C-@ 0ZY^&'((;X(6?I897>
M6PQ"9M!D)>XT((704;77$!HZP^$']*5R7XM 6;=78JUUYAV $[FE9 6E =:
M:!4669]+,8ZWRX..17BAC^IQ9-9B3>K0W9# [D9?DC/K-X).&($99&"^)Y66A
M8^2165.8CYE1(Q)W=@+?C20:D]&1.ITFXT;*0"C@-D.)I29?S7SYUZ-U04<;
MG6TIF>=GB,ZGJ'B,/NFIEYG.MR5WGY::PZ6;)#KJFJ:V6@.JFJBJ&7&NUOIJ
MJ#C:JNN9SW26HYEP-K;KL!7A^YHAEX,N2NRR+1Y3H'_U,$D0L]1NUVN*HS&&
M(JS5QF>L"3/)&2VGW3++K8' LW:0NN>42>^XE& *+ #I'M+ONN)??6JR\&^5+2
M[[X *QM+OP$#3+ D!Q<=< \*0,*QPMPY;\_# $,D1,A%4YAD7QQN_Y5FA3)7$L
M,K9RP,CN12.G#*# [ 'ZPK:$KTM6*QRJS)7Q2*6 -T,T\P\BSH'C.<,9D/-/3])
MM&!A"AM>LS$<731X3F/AY@U1/WU9U2=,W6%PI!UUJM5@)^D%;XGV-^]=&9L3
M]MH"2Z%U="J>["#;:V.],M-CYBHWU6G30;'=);S=J=XB%F[XX7[[^87@1*74
M_#;?@#^>N&IC)WT@1)+7$?GD>6S^7FI\N$YYW:,SN!TH>]A.ND_7W'<WNQD
M7CKKLJPNMJ99R\XR[0VY#A'HNEMK.^:\]XY9X):EKC?LQQ?ORO!XXUB6\M)]
MC'86T#0/3?-9R^JAD?AAKWTKV0<_.)3,XR19^4N/KZ/O[]E$&)50KM\%^Z3
MP7Z-:2\F=-Q6@ID3\)<_,>R0:<.95_M*)KHN%3!F\*/1Y3370/,]T' '<RYU
M,J,=H5%0==:[#0&K=4 4B(M0'@Q?'$98,4)9\(+\BF#01C,M+=5P@P(\3Q^@
M%3T8&D:&Q-06K"14"! :VT'X^5%L&?X>=EE$/#_M&;&&0(I3$&2[1BB:+XM>J
M*(H2FE Q)<JA'K3(12IX<6"$(&.YS@+--+ C20$H0&@4<9T77&, #MS9(.!(
M+3:"\ (5?W&,=E5B%WF"L;TVXS?6D2$?7\+%4?0297'162!>F[VZ-E HB!WG)
M%5D1-7E,) U#F:$TVJ6358SD\C B1E$B\5:"5-<C/Z7*S"S-9%)+B@CUV$B9
ME(>3UC)C#-$'2D!^L&1]\LL/55+[@#KE]5!&0.5=1T5 G.!:N-7* [ ?GI!4Z
M<)G#4F48$00<_?D G.-9R34Q*<Q;#I%5DEP"P])$VJNDYU3V,W4Y.>K 9ZS
M=;),( #NW63<YHOP/)<E$):@<R<L5+J@_R5L2Z_:GG,S]RIBPU"2JZ(E! ?A)O
MDN/CZ"BEITV"=M-K&ZT@0F4E(9&R0J1/G.#MF."1E*#!.>G;I#<P.C*7QE2F
MI/P!*TT:S\H$,27JQ!GM?/K"37KR*S8]PV%^FC/.R$M[+AVI85YGLT?Q=)A2
M_:%G5I IBIT7-7K:C?M)%;49=5&*!J58N*5/X<[C<D8VM;3?B<I>H0E60-
```

MZDSEBL]/ZK6CW50G71<K(MD%MH<^RU> Z)D\\SWVGN++J70V)-A >0:PD=TJ
M9MOPQ,0.U+"2S:0^ DM5TX[6;5[;FVM/^]'\\S):8&K137\\OVVK#[KLHM'4->
MI%RV6=6.@:"E?2LP/4BK%\\0KH\$ JK%A]2SA2]? :F1\$5@X:R\$30Q^UJA6?2=P
MKYL&03U304Y#f\$1@[2U0#f@M>=MN7:1P^27?+R,C?KLN%9G;N6P7[70>8\$J]E*
MF1]*VA=I0AN+)D\$JP4 A)6,@88IQC^N6_I%,H@=6@H*)V%_&" : "^L4H90\$8
M3\$QB. , -X8@JRWG0Q\$' -8Q.7%[79L*<D3 R(OH\$.H=56Q8ALOE)"10=0W;CI>
M&7<RBT6,K73!&CORK?=LZ86@ASW\\A\\FVUYE/KN\\T320>VDP%0L2=(@YON\$80
M<TF\$RDWK=],L3S&_F&E_ ^NV8SBS[DOT:[7-RV?"-\\PH\\ '\$:8S?,U<&GB_&7A
MQ>5*@);'%A.=3@(' [X3Z9?0J"]5E^+Z93S0BL*3]D-HJB:ZQ[.7A@GLD#\\N9
M]\\9MDV%E GI=E43K<^ZLN9N2V A4IK**\$9,,>U,Z:^&06;AZC%A<[WG%+I,
MS5HF<HMH?6RP,/;9T(ZVM*4]H5XON8(-]JIL-EU4(0?+JT:NY[<YANNK IC3
MS%0RE_,;/_ ;:*UG%+.X.!7JU+&5I-K5QLZ4G]E!3N]0=W.P:=:B\$7EL?^F9]
MT7?!U U+; L\\9(QH4V@,U;)5=U=?# '\\C?).]1,9-L>!4))**+0=N1=\\\$4*=1
MDJ#f[* ZPC#f<4?+Y^@N#f\$=")I:7K?S\$XCR1W5P3FS.]7<[B60Z8JEH%<8NE.&
M9J6<\$B2CG[.L=:+:0IU>OTA=^C5X03BQX37MU?CX#MF9,Y65/BO<4' 'KI8AU
M?Q.A(8ZC080D%&[<WT[W+4*V[GC7L*SSSG>(_P=)(]YWXGM<MP%JAM4'_RN
M"E\\!>]SZ(I' .^,/JJ78#fCOR>)^LBIWH=LR3M[E8M/;/=9_WF>?VSPLBO>I-
MK_K6V_WAKH^]QGDD^]K;GF)=S[WN=_ [OMY^WKT/00"' K_O?<SKQAJ"U\\5?;
M,^40WX#f(3_+S51=]G4]_C-7?8_9MCV^R"W6JYYK\\B_BW36.T-KW\\?6H<F?%]
M_<Z5R?GM1NK0)) *W\\X]?[\$'9<5707__VEP['_><Z*I%CY@=R9%9_W\\%:]%=#
M] %_K<%&A6 F#& R%. J&=^VH2!<T52ET,VZ?> A#0NP89J?_<[0,47EI)_
M&RB"00\$C^L1!7(%^\\,2"- 'B * [A^T[. 2C&#f()A8IT1['>8@ \$@6*4AC_(=7
MNF15,\$B\$R*6#fI+:#f ZB!"HB I!:%/7AZX;- /2/(J0YB!'>B\$5"B![/>%*GB"
M40*%-4A.LB&!. (B\$1YA#f#f@B"! '>!+:54,! " !5@B%ZO>&8HA?9"B#fC\\6'%D)^
M'GB"X^>&3IA,V\\<S_! (G(V_A?7BF?EZAXV" (AG!CB%6X@H%83C@X70(EB1Q(
MB1IHAE<X72B'0G;H7%UX/FFX?Y7(@YT8BS>83BTHBYWRB;/(@U (88NH,CRW
M<ZU6,:08BBQ8A0:7B59XC%(XC/I'C#f;HC/QG>**8B\\]8BN7%C' KHL:HAMF8
MC-R(C#f>TB6%(BM"X@-+HBJ!(CM:(72CX%,8XA=4()Q1HBPI79.CXAY;"AI?U
MCN:8CNMX'N^G%_E((*.H2XJXC.T8BO=(B?RHCQ\$UD/X8C^N(=9.7#f?\$"49"X
M51F),+V8,LU6\$A=)D7&XC;W0D3WU,?5((\\2WDBS9DB\$RD>"R%2L7%OPN69,V
M>9/" 9/G]G4ZV7K&5H(JF7D^EXI!691&>936() "X@81JJ&%*>8CT\$H=(J1IF
MIX[=*%>4I73Z(\\; .97%D(UD\\RN9V)5\\8X%)^(%7Z96-LH;WF(!LF99TP98U
MZ):@*)5J:12<")\$WJ)?GE)=:N9><>)<"(I> Z9 IQI6\$:8^"&0Y029?M:)>G
M@W^\$*(-8N9B6>9F8>2Q42)*967=OR)GN8U>=V3V%&(WY\$W4(1HU[1WA5:9JG
M"91 1DHFZ2Q/"(Z026XI^7IV02D?R43NB'XD&9S .9S0))S%29R_>9S*F9S,
M>9N1N(O)^)JKV7 U%V):=2R(. (Y;N9#f\\W%F. "!F+\\B6(V^F=X!F=(#F7M0A#f
M/-DTEI9T.,98WRF>W3F(VCF?5RED2VB)XTF?^FF?G@.=W^A#fCB)-.? =XQPAJ
M\\DF>"<J?^WF?:):?#f6J;\$AJ?YGF88N::T_>+#f]*;FI*=_:F@K^B?%+J9M;B@
M#fCJB'UJ9- 'F6&#fJ:V%FB(0JB]2FC*8J?"C*C#f"JBY<F&%AJA+GJ' R-F83SFD
MDEFD+BBD1FJ01'JD2ZJD29I(, :JB/YJ4L9*(E#fFE^#f*;HH6/G8>EVN>E1A.D
M37I^3]J43%JF\\HBFQMF<8VJF3@JFQT>B*FBB\$[JC-5JG "J/-WJG*.JC<\$I]
M<@JA.DJG_ 'TZJ+7YC2=JIW[:HG_J&U8ZIU&:J(2JJ&U9FQZZJ)%:IXT*18\\J
MJ#f2*J3@JJ8>JIQ\$6JGB:J90J?H&ZIZ#f*YI1*H]!YJ89JJM^9JIRZG\$AZIKKZ
MIKQ*IKOJJ[WJIL ZK,) :K+9J?:05-%I:>D^6?&\\EEL?J'3_W=(('I&X K=%J
M,XZG,=. :E;C:IFGZJ\\:ZIKD:K.%JKN0*KJ"YF!N&:W:G2+LDC!Z:IZU:K]H(
MH^ .8I_0ZJZZ*BY<9;-7J3%EGG<H:;>A9J)]JJ+>ZL/RYPKPD+HDPYFBM&H\$3D
M<0=J. P[J1K;J:Q:J1E[JK1:GA%;%6**IM)9<G21+!:KBOSS.JKV^K"#fN+ -
M.ZH.FZ,P:Z-=^J*0NJHY.WCD=W8LBZ\\S&[(;R[.B^K\$W"[]<2I;S=U?9VJ%L

MJJ8E*Z[G2JQ5.ZY3BZY9:[4TZ;1/&w]F9%K8FF)1\$YX<V[-/ZYPP(;;*ZI1E
MZY=&NZR<))5,JY\$5Z(TDBS7I:K)?JX3E2JP.P)EL^PT.X #F*I+J6GYU2[7K
MVK>S4(DUB[-XN#60.K)^FY^QFIX%R825J[F.&U>0Z[+WNHV;B(B66U)"F[FD
M"WZFFZ[DOQXKM%)2"&+D/^DNE"Z.G^YB8:ZF>>[N=V[A,5BSAMFSBUI.S*[K%
MV+NLB[NNB[H[. [,CZ[LPF+0\X;5T-%=H+T,I"?D7!@@I)%AR<NLNH0NQZ0F\
MDEEPYHNH-%N[NM&\$K9N^!Q=IVXMD7'%PIVB=++>X[;>WXIJ3.@NNB"NU^AO
M5(ML=2@IJ AXWYN%J-@1\$C98#PQY/:A\\,M7PFA =99R"9R**71R#6Q-F1:^
MJ:*V7!@_: N[8 L&^V!N+**A0?:"&Y3 W1NS\3JWN?5]GW/"\$6D.(HR9<R@N
M.FRU!NL%:RU^CO\$7\$N:4?NY#7>_1,E7+9N\OZNX=6NVU(N)ZIO%.NNI4LK\$
M@2:_H\$%M0TNJDOM^ CO%9/F9S%0\$%2:T.^S%%Z85)S2D7JN0?IF[YF0%S0N[
M_&6LQ5#fLQJH)QS%)9S^BCH.<NKR+QE%YI63,OHBDQHI,P7!KR%,Y*9LB5%V+
MR%(\O7MLD)>+OHR,F%KLK\(%R)MKF5LHP=BSM5A;Q=Z'Q&><N /,N0#<F?Y1
MD9RJF*<SRX+\[:;FG\$%\$6T+I,'<R_G\$8@\$;9D1GPDMLQ/5EA*Q,BW]KK'\\
MS2Z:RGD"*-QK=:^6PYH\QGWLFP)%RI.HL)U,N5Q,PMPWH-6JS:"\$%M.&M-![
MSHC[0J%<F")+S](CL^J<JNY,:#X2S^"\OE<<RY'L4?T:F\$K\O&]LS 9\2#VF
M7=]LQWZ\T)RLSZ)*PVS\R:5*R=_WK7P;>>P\L/S8V\4&W=\$4K='W?-)EW#^H
MVLB[; ,HF#3EK?-\$KS7T(ULQ"?--0BZ1="<M7N\4AG;>(X)"7B,(@V<_'Y[5&
MK<L-?02\CAW7--1C:5 #=35/*:0>-4\O<\Z#=#3?=""#F[N\E5?;&U.IQ\$
MJ]"'S-"!G,G60-%_2M9[JKI=W<9N;8\$/]M+D+,[IW,-J2=<HG<AWS:3\K)2B
MG,]RK;L=>\I-S06"G=)]3<0^VZ*3LM8%[=5Y/=./#5MQ^&9K:3AS*B-;;,J
M?=:C7*' %ZVAX"P6 3401C-6,W7U?+78[#=(Q\$U-ILI)A2<D]J.TQM9K6\SR
M-" ,A%WC-(I- %R?T=6)[0LFESREKA7:Q*S40!)V8#QHW*QU]5MS3EQN+4S<
M;\?5N(VHZ#S4AAW7A4W AVMH!#MRL['!HHFR7"8D#JQJ\$(S?JLQW130/Q5%7
M,OW(D\R0&"W-?VW !&M-WJUUP0M[]FU)/UF=5]C?=DW=SGO@!E[:X9S5&KY2
MA^>"0 M=R^UI\RLG\ 'IVBX3:(LW7!&WA>(WA)=S1!+[8YROC;]W94L/BZ.GB
M+][A+'VJ/, [1B8KCOKS6.U[@,3[DE&WC9MUY9LNC1'X_L:W;%HW>NBO : "0;
M40YVK[WEGF#=#7BZ^Y7W;64[E+X[E(VGF82Z F\$W53A[6-[VQ07[A_#Z^YI#-
MXO:LXGH,OW*.Y\$NNY':>XVTNUEL,RFF,YW[>XTS.V8\$.UH-NTWH.YX?^Z)%^
MV(VN#HA.Z!R.>GR>Z>L)VX!^Z1,XYJU<YJ1NX&C>=FHNZJ@ YJR.>UW^ZL)\
MZEI>RM; ,WF2>YJ<NZU'0YYINT88N1I'MR)IGZ;R>3YX>[)*<Y\)^MAL. [(ON
MZL=NP0G-[,ONY@+^V3!=Z-\$>ZT?IZY#^YM:.T#,>[M>^V=(^ [3%)Z9S^Z37^
M[+H\VL*MD0'N[4A)WD@1N.Y^N87;WF?.N/M^X5:N[L>5[D>=PP3?H<UZS\$E]
MGMJ5\ \-FQ3+S.I-ZU-N\1A?V_A^Z_S S6#R^L+K==_1'=/H3NP(:)JB:NS#
M?0)'ZZI677FS=W/?=?=S/1J\$JK^+V^TV7^L\K[1/S:[[_-3]L'RJ[XOJ=@8
MWM_E7N<KG]\$M[Z<=/Y/,7-\??G.Y??,W;^0Y__2CF_0X#_42BUY?(Y A'T+>
M7/*IK?68F05;[_/\ "O:\+MXD+\L: ?_%UG_\$5?_>U#?%W_ =^__> '_B"/_B\$
M7_B&?_B(G_B*O_B'8EG+\UV,WQ"146+7YEV1WT8M]267/:UD[VG%>?FU<W4L
M]S)=MMWP5L.@_SQFS_D*706[I#7VGOH\Y<X:;\$DP)_/Q>\.ROSN.AOHD7?:2
MXL)0Y>3[NW], \$5?\6R8QR'^M.-G\R+ '\R>K\TD]OT!]PC1#[K-[EV/_JP]P^
MZ=[!4E?]WG1QE']?:B7^4%1H"Y:2V.TB#6C<>OV3[;_]B&_Z5+_;#QXE]//
M]\&AZ]V\$/ DD(_ .BBO@.=\M!\$' /"C5SZTJ3NKAN9&>ZMF\UW>^]W]@4#&D
M%HU'9%*Y/,I0I)0'BGI&IR<K]L-RM4ZP*U,\)I?-9W1:06:W@228:K0"SZ;Q
M+"WVI>.Y5C\JMT'"0L-#Q\$3%1<;&G\$# '2,E)RDK+2\Q,S4W.3L]/T%#14=)2
LTU/45-55UE;75]A8V5G:6MM;W%S=7=Y>WU_@8.%AXF()XV/D9.5E9K<(#M2

end

-----[Now, the file fifoonof.txt]-----

Dean, I've dug this all out of the archives. You run the FIFO_ON before running PB, and FIFO_OFF after exiting PB.

Fifo on/off programs in "assemble via DEBUG" form for you to play with:

FIFO_ON.COM:

```
-A
MOV AL,C1    <--- NOTE 1
MOV DX,3FA   <--- NOTE 2
OUT DX,AL
INT 20
```

-N FIFO_ON.COM

-RCX

:8

-W

-Q

FIFO_OFF.COM:

```
-A
MOV AL,0     <--- NOTE 1
MOV DX,3FA   <--- NOTE 2
OUT DX,AL
INT 20
```

-N FIFO_OFF.COM

-RCX

:8

-W

-Q

Note 1: command words; 0=turn off buffering, C1=turn on 16 (14?) byte buffer, 81=turn on 8 byte buffer, 41=turn on 4 byte buffer, 01=turn on 1 byte buffer.

Note 2: address 3FA for COM-1, address 2FA for COM-2.

73 Richard G3RWL

EOM/EOA
=====

Date: 4 Dec 1993 01:16:35 -0500
From: dorsai.dorsai.org!dorsai.dorsai.org!not-for-mail@uunet.uu.net
Subject: TNC Software for Amiga
To: ham-digital@ucsd.edu

Can anyone recommend a good piece of TNC terminal software for the Amiga, especially one available via anonymous FTP? A nice extra would be built-in MFJ-1278T command support -- nice, but not necessary as long as the software is well written and supports scripts, macros, etc.

Thanks in advance for any assistance.

--
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End of Ham-Digital Digest V93 #136

